

**AMENDMENT TO THE CLAIMS**

Kindly delete claims 2, 7-8, 12-14, 18-20, 22, 25-26 and 29 without prejudice to, or disclaimer of, the subject matter disclosed therein. Much of the subject matter of the cancelled claims has been incorporated into the claims which remain.

Kindly amend claims 1, 3, 4, 9-11, 15-17, 21, 23, 24 and 28 and add new claims 30-33 as follows.

The following is a complete listing of revised claims with a status identifier in parenthesis.

**LISTING OF CLAIMS**

1. (Currently Amended) A wireless receiver comprising:  
a receiver for receiving a wireless signal comprising pilot symbols  
and data symbols; and  
a demodulator for generating a log-likelihood ratio as a function of  
a scale factor;  
wherein the scale factor is stored in a look-up table such that an  
index into the look-up table used in retrieving the scale factor is a  
function of a ~~ratio between energy components~~ a noise variance of the  
received pilot symbols of the wireless signal.

2. (Cancelled)

3. (Currently Amended) The wireless receiver of ~~claim 2~~ claim 1 wherein the scale factor is determined independently of relative strengths and number of multipaths in the received wireless signal.

4. (Currently Amended) The wireless receiver of claim 1 further comprising a processor for determining the scale factor as a function of ~~the ratio between energy components of the wireless signal, a noise variance in received data symbols of the received wireless signal, and a~~ the noise variance [[in]] of the received pilot symbols of the received wireless signal.

5. (Original) The wireless receiver of claim 4 wherein the scale factor is determined independently of relative strengths and number of multipaths in the received wireless signal.

6. (Previously Presented) The wireless receiver of claim 1 further comprising a memory for storing the look-up table.

7. – 8. (Cancelled)

9. (Currently Amended) The wireless receiver of claim 1 wherein the receiver comprises a demultiplexer for providing a data signal, representing the data symbols, and a control signal, representing the pilot symbols, ~~and wherein the ratio between energy components is a ratio between the energy per pilot symbol to the energy per data symbol.~~

10. (Currently Amended) The wireless receiver of claim 9 wherein the receiver comprises a control signal detector for recovering from the control signal a value for ~~[[the]]~~ a ratio between the energy per pilot symbol to the energy per data symbol.

11. (Currently Amended) A wireless receiver comprising:  
a memory for storing a look-up table, such that an index into the look-up table for retrieving a scale factor associated with a log-likelihood ratio is a function of a ~~ratio of energy components~~ noise variance of received pilot symbols of a wireless signal which comprises the pilot symbols and data symbols; and

a decoder, responsive to a signal modified by the retrieved scale factor, for decoding a received form of the wireless signal.

12. – 14. (Cancelled)

15. (Currently Amended) The wireless receiver of claim 11 wherein ~~the scale factor values of the look-up table are~~ is determined independently of relative strengths and number of multipaths in the received form of the wireless signal.

16. (Currently Amended) The wireless receiver of claim 11 further comprising a control signal detector for recovering from the received form of the wireless signal a value for ~~[[the]]~~ a ratio between the energy per pilot symbol to the energy per data symbol.

17. (Currently Amended) A wireless receiver comprising:  
a memory for storing a look-up table, wherein one column of the look-up table comprises values that are a function of a ~~noise variance of received pilot symbols ratio of energy components~~ of a wireless signal ~~which comprises the pilot symbols and data symbols~~, and a second column of the look-up table provides associated values of a scale factor; and

a demodulator, responsive to retrieved values of the scale factor, for demodulating a received form of the wireless signal ~~and generating a log-likelihood ratio as a function of the scale factor.~~

18. – 20. (Cancelled)

21. (Currently Amended) The wireless receiver of claim 17 wherein the scale factor values of the look-up table are determined independently of relative strengths and number of multipaths in the received form of the wireless signal.

22. (Cancelled)

23. (Currently Amended) The wireless receiver of ~~claim 17~~ claim 20 further comprising a control signal detector for recovering from the received form of the wireless signal a value for [[the]] a ratio between the energy per pilot symbol to the energy per data symbol for use by the memory.

24. (Currently Amended) A wireless receiver comprising:  
a demodulator for demodulating a received wireless signal  
comprising pilot symbols and data symbols; and  
a processor for determining a scale factor using a look-up table such that an index into the look up table is a function of a noise variance

of the received pilot symbols ratio of energy components of [[a]] the  
wireless signal, and for providing the determined scale factor to the  
demodulator for use in demodulating a received form of the wireless  
signal[[.]]; and wherein the demodulator generates a log-likelihood ratio  
as a function of the scale factor.

25. – 26. (Cancelled)

27. (Original) The wireless receiver of claim 24 wherein the scale  
factor is determined independently of relative strengths and number of  
multipaths in the received wireless signal.

28. (Currently Amended) The wireless receiver of claim 24  
wherein the ~~processor determines the scale factor as index~~ is a function  
of ~~the ratio between energy components of the wireless signal, a noise~~  
variance in the received data symbols of the received form of the wireless  
signal, and [[a]] the noise variance in the received pilot symbols of the  
received form of the wireless signal.

29. (Cancelled)

30. (New) The wireless receiver of claim 4 wherein the processor further determines the scale factor as a function of the noise variance of the received pilot symbols and a noise variance of the received data symbols of the received wireless signal.

31. (New) The wireless receiver of claim 1 wherein the index into the look-up table used in retrieving the scale factor is a function of the noise variance of the received pilot symbols and a noise variance of the received data symbols of the received wireless signal.

32. (New) The wireless receiver of claim 11 wherein the index for retrieving the scale factor is a function of the noise variance of the received pilot symbols and a noise variance of the received data symbols.

33. (New) The wireless receiver of claim 17 wherein the one column of the look-up table further comprises values that are a function of the noise variance of the received pilot symbols and a noise variance of the received data symbols.